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10/575,433	01/16/2007	Yong-Man Ro	AB-1849 US	1864

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/575,433	RO ET AL.
	Examiner	Art Unit	
	Marie Georges Henry	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 January 2007*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/10/2006*.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

U.S. Patent and Trademark Office

PTOL-326 (Rev. 08-06)   Office Action Summary   Part of Paper No./Mail Date 20080206

DETAILED ACTION

1. This is in response to the application filed on 01/16/ 2007. Claims 1-11 are pending.

Claims 1-11 are directed to method and apparatus for converting the modality of

multimedia contents to support the quality of service according to media resource.

2. This application currently names joint inventors. In considering patentability of the

claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the

various claims was commonly owned at the time any inventions covered therein were

made absent any evidence to the contrary. Applicant is advised of the obligation under

37 CFR 1.56 to point out the inventor and invention dates of each claim that was not

commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section

122(b), by another filed in the United States before the invention by the applicant for

patent or (2) a patent granted on an application for patent by another filed in the United

States before the invention by the applicant for patent, except that an international

application filed under the treaty defined in section 351(a) shall have the effects for

purposes of this subsection of an application filed in the United States only if the

international application designated the United States and was published under Article

21(2) of such treaty in the English language.

4.   Claims 1-2 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Tso et

al. (hereinafter "Tso") (US 6,421,733 B1).

Tso discloses the invention as claimed including method and apparatus for converting

the modality of multimedia contents to support the quality of service according to media

resource.

Regarding claim 1, Tso discloses a method of converting a modality of multimedia

contents to support Quality of Service (QoS) of the multimedia contents according to

media resources (Tso, column 17, lines 3-9, this unique feature allows a rich content to

be produced without fear that only users with high-sophisticated data communications

and display capabilities are able to enjoy it), comprising the steps of:

receiving a modality conversion descriptor in which characteristics of modality

conversion of the multimedia contents are described (Tso, column 6, lines 37-42, a

selected transcode service provider uses a separate thread to read the incoming data

stream, transcode it, and place it within the entry of service-side cache memory);

receiving the multimedia contents (Tso, column 14, line 65, a data stream is received);

and converting the modality of the multimedia contents into a modality that is determined according to a media resource and the modality conversion descriptor (Tso, column 3, lines 8-17, data received by transcoder is selected from a variety of providers based on predetermined selection criterion).

Regarding claim 2, Tso discloses the method according to claim 1, wherein the media resource is a network or terminal to which the multimedia contents are provided (Tso, column 4, lines 6-10, transcoding server is coupled to the network client by client/server communications link).

Regarding claim 7, Tso discloses an apparatus for converting a modality of multimedia contents to support QoS of the multimedia contents according to media resources (Tso, column 17, lines 3-9, this unique feature allows a rich content to be produced without fear that only users with high-sophisticated data communications and display capabilities are able to enjoy it) comprising:

means for receiving a modality conversion descriptor in which characteristics of modality conversion of the multimedia contents are described (Tso, column 6, lines 37-42, a selected transcode service provider uses a separate thread to read the incoming data stream, transcode it, and place it within the entry of service-side cache memory);

and means for converting the modality of the multimedia contents into a modality that is determined according to a media resource and the modality conversion descriptor (Tso,

column 3, lines 8-17, data received by transcoder is selected from a variety of providers based on predetermined selection criterion).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 3-6 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tso in view of Adapting Multimedia Internet Content for Universal Access (hereinafter "AMICUA").

Tso discloses the invention substantially as claimed including method and apparatus for converting the modality of multimedia contents to support the quality of service according to media resource.

Regarding claim 3, Tso discloses the method according to claim 1.

Tso does not disclose the modality conversion descriptor describes content value curves and scale factors for modalities of the multimedia contents.

AMICUA discloses the modality conversion descriptor describes content value curves and scale factors for modalities of the multimedia contents (AMICUA, page 20, section 4.1, content value makes it possible for authors or users to specify value judgments about various transcoded versions of the content ; values are obtained also with different functional relationships with the resource in bits).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature into Tso converting system in order to create a converting system with an adapting feature in order to match the capability of the client device.

Regarding claim 4, Tso discloses the method according to claim 3.

Tso does not disclose the modality conversion step comprises the steps of: obtaining conversion boundaries using the content value curves and scale factors for the modalities; determining an optimal modality for the media resource using the conversion boundaries; and converting the multimedia contents into the determined optimal modality.

AMICUA discloses wherein the modality conversion step comprises the steps of: obtaining conversion boundaries using the content value curves and scale factors for the modalities (AMICUA, page 12, fig. 2, an InfoPyramid for a video item value curves

and scales factors is disclosed);determining an optimal modality for the media resource

using the conversion boundaries (AMICUA, page 16, lines 1-5, from the InfoPyramid,

the customization module selects the final ensemble such that it optimally satisfies all

the client's resource constraints);and converting the multimedia contents into the

determined optimal modality (AMICUA, page 15, lines 1-11, the system transcodes the

content based on the dimensions of the resolution and the modality).

Therefore it would have been obvious for one having ordinary skill in the art at the time

the invention was made to implement AMICUA adapting feature into Tso converting

system in order to create a converting system with an adapting feature in order to match

the capability of the client device.

Regarding claim 5, Tso discloses the method according to claim 4.

Tso does not disclose the conversion boundaries are values of the media resource

corresponding to intersection points where the content value curves intersect with each

other when the content value curves for the modalities overlap with each other

according to the scale factors.

AMICUA discloses the conversion boundaries are values of the media resource

corresponding to intersection points where the content value curves intersect with each

other when the content value curves for the modalities overlap with each other

according to the scale factors (AMICUA, page 12, fig. 2, a modality function based on

scale factors is disclosed).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature into Tso converting system in order to create a converting system with an adapting feature in order to match the capability of the client device.

Regarding claim 6, Tso discloses the method according to claim 3.

Tso does not disclose that each of the content value curves is obtained by combining content value curves that are measured according to two or more different qualities.

AMICUA discloses that each of the content value curves is obtained by combining content value curves that are measured according to two or more different qualities (AMICUA, page 20, section 4.1, fig.3 shows a table where values are obtained with different functional relationships with the resource in bits).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature into Tso converting system in order to create a converting system with an adapting feature in order to match the capability of the client device.

Regarding claim 8, Tso discloses the apparatus according to claim 7.

Tso does not disclose the modality conversion descriptor describes content value curves and scale factors for modalities of the multimedia contents.

AMICUA discloses the modality conversion descriptor describes content value curves and scale factors for modalities of the multimedia contents (AMICUA, page 20, section

4.1, content value makes it possible for authors or users to specify value judgments about various transcoded version of the content ; values are obtained also with different functional relationships with the resource in bits).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature into Tso converting system in order to create a converting system with an adapting feature in order to match the capability of the client device.

Regarding claim 9, Tso discloses the apparatus according to claim 8.

Tso does not disclose the modality conversion means comprises: means for obtaining conversion boundaries using the content value curves and scale factors for the modalities (AMICUA, page 12, fig. 2, an InfoPyramid for a video item value curves and scales factors is disclosed); and means for converting the modality of the multimedia contents into the determined optimal modality.

AMICUA discloses the modality conversion means comprises: means for obtaining conversion boundaries using the content value curves and scale factors for the modalities (AMICUA, page 16, lines 1-5, from the InfoPyramid, the customization module selects the final ensemble such that it optimally satisfies all the client's resource constraints); and means for converting the modality of the multimedia contents into the determined optimal modality (AMICUA, page 15, lines 1-11, the systems transcodes the content based on the dimensions of the resolution and the modality).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature into Tso converting system in order to create a converting system with an adapting feature in order to match the capability of the client device.

Regarding claim 10, Tso discloses the apparatus according to claim 9.

Tso does not disclose the conversion boundaries are values of the media resource corresponding to intersection points where the content value curves intersect with each other when the content value curves of the modalities overlap with each other according to the scale factors.

AMICUA discloses the conversion boundaries are values of the media resource corresponding to intersection points where the content value curves intersect with each other when the content value curves of the modalities overlap with each other according to the scale factors (AMICUA, page 12, fig. 2, a modality function based on scale factors is disclosed).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature into Tso converting system in order to create a converting system with an adapting feature in order to match the capability of the client device.

Regarding claim 11, Tso discloses the apparatus according to claim 8.

Tso does not disclose that each of the content value curves is obtained by combining

content value curves that are measured according to two or more different qualities.

AMICUA discloses that each of the content value curves is obtained by combining

content value curves that are measured according to two or more different qualities.

(AMICUA, page 12, fig. 2, a modality function based on scale factors is disclosed).

Therefore it would have been obvious for one having ordinary skill in the art at the time

the invention was made to implement AMICUA adapting feature into Tso converting

system in order to create a converting system with an adapting feature in order to match

the capability of the client device. .

7. The prior arts made of record and not relied upon are considered pertinent to

applicant's disclosure. Wadell (US 6,816,805 B1) is made part of the record because of

the teaching of conversion. Tso (US 6,959,318 B1) is made part of the record

because of the teaching of transcoding. Signes (US 6,195,088 B1) is made part of the

record because of the teaching of encoding. Moore et al. (US 6, 310, 601B1) is made

part of the record because of the teaching of multimedia content. Chernock et al. (US 6,

314,569 B1) is made part of the record because of the teaching of multimedia

presentation. Li et al. (US 6, 345,279 B1) is made part of the record because of the

teaching of transcoded content version.

Conclusion

8. Any inquiry concerning this communication from the examiner should be

directed to Marie Georges Henry whose telephone number is (571) 270-3226.

The examiner can normally be reached on Monday to Friday 7:30am - 4:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MH 2/6/2008

Marie Georges A. Henry

/SALEH NAJJAR/
SUPERVISORY PATENT EXAMINER